STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION







PATRICIA W. AHO
COMMISSIONER

Lewiston Mill Redevelopment Corporation Androscoggin County Lewiston, Maine A-147-71-S-R Departmental
Findings of Fact and Order
Air Emission License
Renewal

FINDINGS OF FACT

After review of the air emissions license renewal application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes Annotated (M.R.S.A.), §344 and §590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

The Lewiston Mill Redevelopment Corporation (Bates Mill Complex) has applied to renew their Air Emission License permitting the operation of emissions sources associated with their mixed use commercial, office and retail space.

The equipment addressed in this license is located at 35 Canal Street in Lewiston, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

	Maximum				Post	
	Capacity	Maximum	Fuel Type,	Install	Combustion	Stack
Equipment	(MMBtu/hr)	Firing Rate	<u>% sulfur</u>	. <u>Date</u>	Ctrl Eqpmnt	<u>#</u>
Boiler #1	29.3	209 gal/hr	#2 Fuel Oil, 0.3% a	1994	LNB and FGR b	1
Bollet #1	29.3	28,447 scf/hr	Natural Gas	1994	LIND and FOR	1
Boiler #2	29.3	209 gal/hr	#2 Fuel Oil, 0.3% a	1994	LNB and FGR b	1
Boner #2	29.5	28,447 scf/hr	Natural Gas	1994	LND allu FUK	1

Table Notes:

The initial BACT analysis licensed in amendment A-147-72-O-A (issued September 19, 1994) limited the No. 2 fuel oil to 0.3% sulfur by weight

Departmental Findings of Fact and Order Air Emission License Renewal

Abbreviations of LNB and FGR stand for low NO_X burners and flue gas recirculation

C. Application Classification

The application for the Bates Mill Complex does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of currently licensed emission units only and has been processed as such through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (CMR) 115 (as amended). With the fuel limits on the boilers, the facility is licensed below the major source thresholds for hazardous air pollutants (HAP) and is considered an area source of HAP.

2

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Boilers #1 and #2

The Bates Mill Complex operates two boilers, designated Boilers #1 and #2. Boilers #1 and #2 are 700 HP Cleaver Brooks fire tube boilers, with each having the capability to fire both No. 2 fuel oil and natural gas. The boilers each have a rated capacity of 29.3 MMBtu/hr and were manufactured in 1994. Boilers #1 and #2 are each equipped with low-NO_X burners (LNB) and flue gas recirculation (FGR) to reduce NO_X emissions and meet the requirements of BPT.

Due to the size and year of installation, the boilers are subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, for units greater than 10 MMBtu/hr manufactured after June 9, 1989. Due

Departmental Findings of Fact and Order Air Emission License Renewal

3

to Boilers #1 and #2 being less than 30 MMBtu/hr, there are no applicable emission standards or monitoring and testing requirements; however, the Bates Mill Complex shall record and maintain records of the amount of each fuel combusted during each month in each boiler. [40 CFR Part 60, §60.48c(g)(2)]

1. BPT Findings

The BPT emission limits for the boilers were based on the following:

No. 2 Fuel Oil

PM/PM₁₀ - 0.03 lb/MMBtu from the initial BACT analysis *

SO₂ – Based on firing No. 2 fuel oil with a 0.3% sulfur content, by

weight (0.3 lb/MMBtu) from the initial BACT analysis *

NO_X - 0.18 lb/MMBtu from the initial BACT analysis *
CO - 0.07 lb/MMBtu from the initial BACT analysis *
VOC - 0.03 lb/MMBtu from the initial BACT analysis *

Opacity - 06-096 CMR 101

Natural Gas

PM/PM₁₀ - 0.01 lb/MMBtu from the initial BACT analysis *

SO₂ – 0.6 lb/MMscf (0.001 lb/MMBtu) based on AP-42, Table

1.4-2, dated 7/98

NO_X - 0.04 lb/MMBtu from the initial BACT analysis *
CO - 0.15 lb/MMBtu from the initial BACT analysis *
VOC - 0.02 lb/MMBtu from the initial BACT analysis *

Opacity - 06-096 CMR 101

The BPT emission limits for the boilers are the following:

		PM	PM ₁₀	SO_2	NO_{x}	CO	VOC
Unit	Fuel Type	(lb/hr)	(lb/hr)	(lb/hr)	<u>(lb/hr)</u>	<u>(lb/hr)</u>	(lb/hr)
D - !1 41	Fuel Oil	0.88	0.88	8.85	5.27	2.05	0.88
Boiler #1	Natural Gas	0.29	0.29	0.02	1.17	4.40	0.59
Dailan #0	Fuel Oil	0.88	0.88	8.85	5.27	2.05	0.88
Boiler #2	Natural Gas	0.29	0.29	0.02	1.17	4.40	0.59

When one or both boilers are firing No. 2 fuel oil, visible emissions from Stack 1 (serving Boilers #1 and #2) shall not exceed 20% opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute

^{*} The initial BACT analysis was submitted in July of 1994 and was licensed in amendment A-147-72-O-A (issued September 19, 1994). The BACT analysis incorporates the boilers size, age and level of combustion control.

Departmental Findings of Fact and Order Air Emission License Renewal

block average in a 3-hour period. When natural gas is the only fuel being fired, visible emissions from Stack 1 (serving Boilers #1 and #2) shall not exceed 10% opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period.

4

The Bates Mill Complex shall be limited to 400,000,000 scf/year of natural gas and 1,000,000 gallons/year of No. 2 fuel oil based on a calendar year total.

Prior to July 1, 2016, or by the date otherwise stated in 38 MRSA §603-A(2)(A)(3), the No. 2 fuel oil fired at the facility shall be ASTM D396 compliant No. 2 fuel oil (maximum sulfur content of 0.5% by weight). Per 38 MRSA §603-A(2)(A)(3), beginning July 1, 2016, or on the date specified in the statute, the facility shall fire No. 2 fuel oil with a maximum sulfur content limit of 0.005% by weight (50 ppm), and beginning January 1, 2018, or on the date specified in the statute, the facility shall fire No. 2 fuel oil with a maximum sulfur content limit of 0.0015% by weight (15 ppm). The specific dates contained in this paragraph reflect the current dates in the statute as of the effective date of this license; however, if the statute is revised, the facility shall comply with the revised dates upon promulgation of the statute revision.

2. Periodic Monitoring

Periodic monitoring for the boilers shall include recordkeeping to document fuel use on a monthly and calendar year basis. Documentation shall include the type, quantity and sulfur content of the fuel, if applicable.

3. 40 CFR Part 63, Subpart JJJJJJ

Boilers #1 and #2 may be subject to the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (40 CFR Part 63 Subpart JJJJJJ). The units are considered existing oil boilers.

Gas-fired boilers are exempt from 40 CFR Part 63, Subpart JJJJJJ. However, boilers which fire No. 2 fuel oil are not. A "gas-fired boiler" is defined as any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year. [40 CFR Part 63.11237]

Any boilers designed to burn fuels besides natural gas prior to June 4, 2010 will be considered an existing boiler under this rule. A boiler which currently fires natural gas, but converts back to firing another fuel (such as No. 2 fuel

Departmental Findings of Fact and Order Air Emission License Renewal

5

oil) in the future, would become subject as an existing boiler at the time it is converted back to fuel oil.

A summary of the currently applicable federal 40 CFR Part 63 Subpart JJJJJJ requirements is listed below. At this time, the Department has not taken delegation of this area source MACT (Maximum Achievable Control Technology) rule promulgated by EPA, however the Bates Mill Complex is still subject to the requirements. Notification forms and additional rule information can be found on the following website: http://www.epa.gov/ttn/atw/boiler/boilerpg.html.

- a. Compliance Dates, Notifications, and Work Practice Requirements
 - i. Initial Notification of Compliance

An Initial Notification submittal to EPA was due January 20, 2014. [40 CFR Part 63.11225(a)(2)]

- ii. Boiler Tune-Up Program
 - (a) A boiler tune-up program should have been implemented to include the initial tune-up of applicable boilers no later than March 21, 2014. [40 CFR Part 63.11196(a)(1)]
 - (b) The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:
 - 1. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim system, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(1)]
 - 2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR Part 63.11223(b)(2)]
 - 3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than 5 MMBtu/hr, boilers with oxygen trim system, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(3)]

Departmental Findings of Fact and Order Air Emission License Renewal

- 4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]
- 5. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR Part 63.11223(b)(5)]
- 6. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 CFR Part 63.11223(b)(7)]
- (c) After conducting the initial boiler tune-up, a Notification of Compliance Status shall be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(b)]
- (d) The facility shall implement a boiler tune-up program after the initial tune-up and initial compliance report (called a Notification of Compliance Status) has been submitted.
 - 1. Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

Boiler Category	Tune-Up Frequency		
New or Existing Oil, Biomass and Coal fired boilers that are not designated as "Boilers with less frequent tune up requirements" listed below	Every 2 years		
New and Existing Oil, Biomass, and Coal fired			
Boilers with less frequent tune up requirements	T		
Boiler with oxygen trim system which maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune up	Every 5 years		

[40 CFR Part 63.11223(a) and Table 2]

2. The tune-up compliance report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the concentration of CO in the effluent stream (ppmv) and oxygen in volume percent, measured at high fire or typical operating load, before and after the boiler tune-up, a description of any corrective actions taken as part of the tune-up of the boiler, and the types and amounts of fuels used over the 12 months prior to the tune-up of the boiler. [40 CFR Part 63.11223(b)(6)] The

6

Departmental Findings of Fact and Order Air Emission License Renewal

7

compliance report shall also include the company name and address; a compliance statement signed by a responsible official certifying truth, accuracy, and completeness; and a description of any deviations and corrective actions. [40 CFR Part 63.11225(b)]

iii. Energy Assessment

Boilers #1 and #2 are subject to the energy assessment requirement as follows:

- (a) A one-time energy assessment should have been performed by a qualified energy assessor on the applicable boilers no later than March 21, 2014. [40 CFR Part 63.11196(a)(3)]
- (b) The energy assessment shall include a visual inspection of the boiler system; an evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints; an inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator; a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage; a list of major energy conservation measures that are within the facility's control; a list of the energy savings potential of the energy conservation measures identified; and a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

 [40 CFR Part 63, Table 2(4)]
- (c) A Notification of Compliance Status shall be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(c)]

b. Recordkeeping

Records shall be maintained consistent with the requirements of 40 CFR Part 63 Subpart JJJJJ including the following [40 CFR Part 63.11225(c)]: copies of notifications and reports with supporting compliance documentation; identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned; documentation of fuel type(s) used monthly by each boiler; the occurrence and duration of each malfunction of the boiler; and actions taken during periods of malfunction to minimize

Departmental Findings of Fact and Order Air Emission License Renewal

8

emissions and actions taken to restore the malfunctioning boiler to its usual manner of operation. Records shall be in a form suitable and readily available for expeditious review.

Note: EPA will require submission of Notification of Compliance Status reports for tune-ups and energy assessments through their electronic reporting system. [63.1125(a)(4)(vi)]

C. General Process Emissions

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period.

D. Annual Emissions

1. Total Annual Emissions

The Bates Mill Complex shall be restricted to the following annual emissions, based on a calendar year total. The tons per year limits were calculated for Boilers #1 and #2 based on fuel limits of 1,000,000 gallons/year of No. 2 fuel oil and 400,000,000 scf/year of natural gas:

Total Licensed Annual Emissions for the Facility Tons/year

(used to calculate the annual license fee)

	Fuel Type	PM	PM_{10}	SO_2	NO_X	CO	VOC
Boilers #1	Fuel Oil	2.1	2.1	21.2	12.6	4.9	2.1
and #2	NG	2.1	2.1	0.1	8.2	30.9	4.1
Total	TPY	4.2	4.2	21.3	20.8	35.8	6.2

Notes: This represents a worst-case scenario since it uses the entirety of both the No. 2 fuel oil and natural gas fuel caps which exceeds the maximum possible operating time of the two boilers.

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's Approval and Promulgation of Implementation Plans, 40 CFR Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. Greenhouse gases, as defined in 06-096 CMR 100 (as amended), are the aggregate group of the following gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes,

Departmental Findings of Fact and Order Air Emission License Renewal

9

greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO₂e).

Based on the facility's fuel use limits, the worst case emission factors from AP-42, IPCC (Intergovernmental Panel on Climate Change), and *Mandatory Greenhouse Gas Reporting*, 40 CFR Part 98, and the global warming potentials contained in 40 CFR Part 98, the Bates Mill Complex is below the major source threshold of 100,000 tons of CO₂e per year. Therefore, no additional licensing requirements are needed to address GHG emissions at this time.

III.AMBIENT AIR QUALITY ANALYSIS

The level of ambient air quality impact modeling required for a minor source shall be determined by the Department on a case-by-case basis. In accordance with 06-096 CMR 115, an ambient air quality impact analysis is not required for a minor source if the total emissions of any pollutant released do not exceed the following levels and there are no extenuating circumstances:

<u>Pollutant</u>	Tons/Year
PM ₁₀	25
SO_2	50
NO _x	50
СО	250

The total facility licensed emissions are below the emission levels contained in the table above and there are no extenuating circumstances: therefore, an ambient air quality impact analysis is not required as part of this license.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-147-71-S-R subject to the following conditions.

Departmental
Findings of Fact and Order
Air Emission License
Renewal

10

<u>Severability</u>. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S.A. §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353-A. [06-096 CMR 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records

Departmental Findings of Fact and Order Air Emission License Renewal

11

for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]

- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - 1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - 2. pursuant to any other requirement of this license to perform stack testing.
 - B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 115]

- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
 - A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to

Departmental
Findings of Fact and Order
Air Emission License
Renewal

12

the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 CMR 115]

- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

SPECIFIC CONDITIONS

(16) **Boilers #1 and #2**

A. Fuel

- 1. Total fuel use for Boilers #1 and #2 shall not exceed 1,000,000 gallons/year of No. 2 fuel oil and 400,000,000 scf/year of natural gas, based on a calendar year. [06-096 CMR 115, BPT]
- 2. Prior to July 1, 2016 or the date specified in 38 MRSA §603-A(2)(A)(3), the No. 2 fuel oil fired in the boilers shall be ASTM D396 compliant (max. sulfur content of 0.5% by weight). [06-096 CMR 115, BPT]

Departmental Findings of Fact and Order Air Emission License Renewal

13

- 3. Beginning July 1, 2016 or on the date specified in 38 MRSA §603-A(2)(A)(3), the facility shall fire No. 2 fuel oil with a maximum sulfur content limit of 0.005% by weight (50 ppm). [38 MRSA §603-A(2)(A)(3)]
- 4. Beginning January 1, 2018 or on the date specified in 38 MRSA §603-A(2)(A)(3), the facility shall fire No. 2 fuel oil with a maximum sulfur content limit of 0.0015% by weight (15 ppm). [38 MRSA §603-A(2)(A)(3)]
- 5. Compliance with the No. 2 fuel oil limit shall be demonstrated by fuel records from the supplier showing the quantity, type, and the percent sulfur of the fuel delivered. Records of annual fuel use shall be kept on a monthly and calendar year basis. [06-096 CMR 115, BPT and 40 CFR Part 60, §60.48c(g)(2]
- 6. Compliance with the natural gas fuel limit shall be demonstrated by a fuel flow monitor. Records of annual fuel use shall be kept on a monthly and calendar year basis. [06-096 CMR 115, BPT and 40 CFR Part 60, §60.48c(g)(2]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
No. 2 Fuel Oil Boiler	PM	0.03	Established DACT A 147
Natural Gas Boiler	PM	0.01	Established BACT, A-147-72-O-A (issued September
No. 2 Fuel Oil Boiler	NO_X	0.18	19, 1994)
Natural Gas Boiler	NO_X	0.04	19, 1994)

C. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM	PM ₁₀	SO ₂	NOX	СО	VOC		
	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)		
Boiler #1	Boiler #1							
No. 2 Fuel Oil	0.88	0.88	8.85	5.27	2.05	0.88		
Natural Gas	0.29	0.29	0.02	1.17	4.40	0.59		
Boiler #2				. *,				
No. 2 Fuel Oil	0.88	0.88	8.85	5.27	2.05	0.88		
Natural Gas	0.29	0.29	0.02	1.17	4.40	0.59		

D. Visible Emissions

- 1. Visible emissions from Stack 1 (serving Boilers #1 and #2) when one or both boilers are firing fuel oil shall not exceed 20% opacity on a 6-minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period. [06-096 CMR 101]
- 2. Visible emissions from Stack 1 (serving Boilers #1 and #2) when natural gas is the only fuel being fired shall not exceed 10% opacity on a 6-minute

Departmental Findings of Fact and Order Air Emission License Renewal

14

block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period. [06-096 CMR 101]

E. 40 CFR Part 60, Subpart Dc

The Bates Mill Complex shall comply with all requirements of 40 CFR Part 60, Subpart Dc applicable to Boilers #1 and #2 including, but not limited to, the following:

- 1. The Bates Mill Complex shall record and maintain records of the amounts of each fuel combusted during each calendar month with fuel certifications. [40 CFR §60.48c(g)(2)]
- 2. The Bates Mill Complex shall submit to EPA and the Department semi-annual reports. These reports shall include the calendar dates covered in the reporting period and records of fuel supplier certifications. The semi-annual reports are due within 30 days of the end of each 6-month period.
- 3. The following address for EPA shall be used for any reports or notifications required to be copied to them:

Compliance Clerk USEPA Region 1 5 Post Office Sq. Suite 100 Boston, MA 02109-3912

F. 40 CFR Part 63, Subpart JJJJJJ [incorporated under 06-096 CMR 115, BACT]

- 1. An Initial Notification submittal to EPA was due no later than January 20, 2014. [40 CFR Part 63.11225(a)(2)]
- 2. A boiler tune-up program should have been implemented to include the initial tune-up of applicable boilers no later than March 21, 2014. [40 CFR Part 63.11196(a)(1)]
- 3. The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:
 - (a) As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for boilers with oxygen trim systems. [40 CFR Part 63.11223(b)(1)]
 - (b) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR Part 63.11223(b)(2)]

15

- (c) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for boilers with oxygen trim systems. [40 CFR Part 63.11223(b)(3)]
- (d) Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]
- (e) Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR Part 63.11223(b)(5)]
- (f) If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 CFR Part 63.11223(b)(7)]
- 4. After conducting the initial boiler tune-up, a Notification of Compliance Status shall be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(b)]
- 5. The facility shall implement a boiler tune-up program after the initial tuneup and initial compliance report (called a Notification of Compliance Status) has been submitted.
 - (a) Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

Boiler Category	Tune-Up Frequency
New or Existing Oil, Biomass and Coal fired boilers that are not designated as "Boilers with	
less frequent tune up requirements" listed below	Every 2 years
New and Existing Oil, Biomass, and Coal fired	
Boilers with less frequent tune up requirements	
Boiler with oxygen trim system which maintains	
an optimum air-to-fuel ratio that would	
otherwise be subject to a biennial tune up	Every 5 years

[40 CFR Part 63.11223(a) and Table 2]

(b) The tune-up compliance report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the concentration of CO in the effluent stream (ppmv) and oxygen in

16

volume percent, measured at high fire or typical operating load, before and after the boiler tune-up, a description of any corrective actions taken as part of the tune-up of the boiler, and the types and amounts of fuels used over the 12 months prior to the tune-up of the boiler. [40 CFR Part 63.11223(b)(6)] The compliance report shall also include the company name and address; a compliance statement signed by a responsible official certifying truth, accuracy, and completeness; and a description of any deviations and corrective actions. [40 CFR Part 63.11225(b)]

- 6. A one-time energy assessment shall be performed by a qualified energy assessor on the applicable boilers no later than March 21, 2014. [40 CFR Part 63.11196(a)(3)]
 - (a) The energy assessment shall include a visual inspection of the boiler system; an evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints; an inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator; a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage; a list of major energy conservation measures that are within the facility's control; a list of the energy savings potential of the energy conservation measures identified; and a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments. [40 CFR Part 63, Table 2(4)]
 - (b) A Notification of Compliance Status shall be submitted to EPA for completing the one-time energy assessment performed by a qualified energy assessor on Boilers #1 and #2 no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(c)]
- 7. Records shall be maintained consistent with the requirements of 40 CFR Part 63 Subpart JJJJJJ including the following [40 CFR Part 63.11225(c)]: copies of notifications and reports with supporting compliance documentation; identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned; documentation of fuel type(s) used monthly by each boiler; the occurrence and duration of each malfunction of the boiler; and actions taken during periods of malfunction to minimize emissions and actions taken to restore the malfunctioning boiler to its usual manner of operation. Records shall be in a form suitable and readily available for expeditious review.

Departmental Findings of Fact and Order Air Emission License Renewal

17

(17)**General Process Sources**

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 101]

The Bates Mill Complex shall notify the Department within 48 hours and submit (18)a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS

28 DAY OF April

, 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

The term of this license shall be ten (10) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 01/03/2014

Date of application acceptance: 01/16/2014

Date filed with the Board of Environmental Protection:

This Order prepared by Allison M. Hazard, Bureau of Air Quality.

State of Maine Board of Environmental Protection Age of the $\begin{cases} \frac{1}{2} \left(\frac{1}{2} + \frac{1}{2} \right) & \text{if } 1 \leq \frac{1}{2} \end{cases}$

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